

# Nico D'Cotta

## Backend Software Engineer

📍 London, UK  
✉ nico@dcotta.eu

🌐 nico.dcotta.eu  
🔗 github.com/cottand  
🌐 linkedin.com/in/ndcotta

### EXPERIENCE

06/2020 – today  
intern,  
then part-time,  
then full time,  
then part-time

#### Platform engineer, at **Blockchain.com**

Large crypto finance house (including a wallet and an exchange) with retail and institutional businesses. Implementing application performance monitoring and performing **production incident response**. Shipping under time constraints on several large **JVM** codebases that power the cryptocurrency exchange and wallet. Scaling up distributed systems with a **microservices** event-driven architecture. Engineering tooling in order to facilitate development and allow for faster iterations.

06/2019 –  
10/2019  
intern

#### Software Engineer, at **Emit, Inc.**

Four-person startup with its own smartwatch aiming to provide time-analytics to institutional customers. Worked on data analytics, developing a data processing pipeline and libraries in **Kotlin** and **Python** on top of serverless tech on **AWS (Lambda, DynamoDB, ElasticSearch)**.

### EDUCATION

2018 – 06/2022

#### **MEng Computer Science – currently First Class Honours**, at **Imperial College London**

Focus on Software Engineering, Distributed Systems, Network and Computer Security, Systems and Data Scalability, Logic-based AI, Type Systems for Programming Languages, Simulation & Modelling. Additional Business School modules include Finance & Financial Markets, Business Strategy, Project Management.

2015-2018

#### **French Baccalaureate (S-SI) – Highest Honours**, at **French Lycée of Madrid**

High-school diploma with **Engineering Sciences with Further Maths** specialisations, and completed optional Portuguese and Music modules. Extracurriculars include two Model UNs, Drama, Choir, student representative, competing in the basketball team.

### PROJECTS

see my full portfolio at [nico.dcotta.eu](http://nico.dcotta.eu)

AWS (Lambda, DynamoDB, EC2), Kotlin, VueJS, TS

#### **DJStreamr, collaborative streaming service for DJs**

🌐 [djstreamr.com](http://djstreamr.com)

Music synchronisation protocol implemented as a webapp with an event-driven platform architecture which leverages serverless technology.

Kotlin, JVM bytecode, ARM11 assembly

#### **WACC, multiplatform compiler**

🔗 [cottand/WACC](https://github.com/cottand/WACC)

Multiplatform compiler from WACC (a toy language) to JVM bytecode and ARM11 64-byte assembly that supports basic constructs like stack-allocated primitives, and heap-allocated arrays and pairs.

C, x86 assembly

#### **PintOS, UNIX-like OS**

🌐 [pintos-os.org](http://pintos-os.org)

Pint-sized OS with features such as advanced scheduling, paging, virtual memory and user programs with support for some of the C stdlib.

Unity, C#

#### **ICHack'19 (Hackathon) – Best Mobile App Award**

🔗 [cottand/ICHack2019](https://github.com/cottand/ICHack2019)

AR-powered teaching app in that brings interactive 3D models to students' phones.

Elixir, Paxos

#### **Multi-Paxos**

🔗 [cottand/multi-paxos](https://github.com/cottand/multi-paxos)

Implementation of a variation of the Paxos consensus algorithm, as specified in the paper *Paxos Made Moderately Complex*.

### TECHNOLOGIES

**Proficient in** JVM (Kotlin, Java), Gradle

**Experience with** AWS (Lambda, DynamoDB EC2, S3, CodeDeploy, API Gateway), Nomad

Python, C, Haskell, Typescript, Elixir

gRPC + protobufs, Kafka, Akka, PostgreSQL, Docker, APM, ConcourseCI, TravisCI, GitlabCI, React, VueJS

### LANGUAGES

**English** - bilingual (C2 certification)

**Spanish** - native

**French** - bilingual

**Portuguese** - advanced level

### HOBBIES

I enjoy DJing as well as kitesurfing and rock climbing!